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10/575,105	12/12/2006	Masayuki Kamite	289478US3 PCT	3713
22850	7590	02/09/2009	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.			LEYSON, JOSEPH S	
1940 DUKE STREET				
ALEXANDRIA, VA 22314			ART UNIT	PAPER NUMBER
			1791	
			NOTIFICATION DATE	DELIVERY MODE
			02/09/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/575,105	<b>Applicant(s)</b> KAMITE ET AL.
	<b>Examiner</b> JOSEPH LEYSON	<b>Art Unit</b> 1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 October 2008.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 and 3-8 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/DS/06)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemerer et al. (US 4,128,369) in view of DeMello et al. (US 5,607,629).

Kemerer et al. (US 4,128,369) disclose an extrusion molding machine (i.e., fig. 10A), which includes a storage bin 10 to supply foam material granules (i.e., abstract; col. 14, lines 19-32) to be molded into a foam body, a cylinder (i.e., col. 14, lines 19-21) and a screw 66 to mix and transport the foam material from the storage bin 10, a mold 24, 28 provided at a cylinder front end (fig. 12), a tank 58 connected to piping 12, 14, 16, 60 that connects the storage bin 10 and the screw 66 and storing a fluid for foaming

the foam material (i.e., col. 14, lines 9-18; col. 17, lines 53-68), and a heater 21-1, 21-2, 21-3, 21-4 for melting foam material and at the same time heating the foaming fluid by a plurality of stages (i.e., defined by the heaters 21-1, 21-2, 21-3, 21-4) from a base end of the cylinder near the storage bin to the front end from an initial temperature below its boiling point to a final temperature at which the foaming fluid is completely vaporized (i.e., col. 11, lines 19-57; col. 18, lines 28-56). The initial temperature of the above-mentioned heater is capable of being set as above 60°C and below 100°C, and the final temperature is capable of being set as above 160°C and below 240°C (i.e., col. 11, lines 19-57; col. 18, lines 28-56). A temperature control device 32 (i.e., fig. 11) is provided that is capable of adjusting a temperature of the mold in a range of 160°C-220°C (i.e., col. 19, line 63, to col. 20, line 3). A shearing device 50 is set up at one side of the cylinder, rotating at a certain speed to cut an extruded foam body from the cylinder. However, Kemerer et al. (US 4,128,369) does not disclose the foaming fluid being water.

DeMello et al. (US 5,607,629) discloses an extrusion molding machine for extruding a foamable material, wherein the foaming (i.e., blowing) fluid is water (i.e., abstract).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the foaming fluid of Kemerer et al. (US 4,128,369) to be water because it is well known in the art to use water as a foaming (i.e., blowing) agent, as disclosed by DeMello et al. (US 5,607,629). Note that the apparatus of Kemerer et al. is capable of using the instantly claimed materials and temperatures, but such

materials and temperatures relate to the intended use of the claimed apparatus. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114. "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." *In re Young*, 75 F.2d \*>996<, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

Furthermore, such temperatures would have been found by an artisan of ordinary skill due to routine experimentation in finding operable or optimum temperatures for processing the various materials disclosed by Kemerer et al. (US 4,128,369).

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemerer et al. (US 4,128,369) in view of DeMello et al. (US 5,607,629) as applied to claims 1, 7 and 8 above, and further in view of LeGourd (US 3,314,398).

Kemerer et al. (US 4,128,369) and DeMello et al. (US 5,607,629) disclose the apparatus substantially as claimed as mentioned above, except for the limitations of instant claims 3 and 4.

LeGourd (US 3,314,398: fig. 1; col. 2, lines 10-18) discloses a storage bin 7 including means for causing material flow in the storage bin 7 defined by a vibrating

mechanism effecting intermittent vibration laterally on a side of the storage bin 7, wherein an electric motor 4 and a cam 21 is mounted on the storage bin 7 to effect vibration of the storage bin 7 by intermittently knocking the side of the storage bin 7 by the cam 21 driven by the electric motor 4.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus with an electric motor and a cam, as disclosed by LeGourd (US 3,314,398), because such a modification would provide means for causing material flow in the storage bin.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemerer et al. (US 4,128,369) in view of DeMello et al. (US 5,607,629) as applied to claims 1, 7 and 8 above, and further in view of Hayashi et al. (US 4,548,775).

Kemerer et al. (US 4,128,369) and DeMello et al. (US 5,607,629) disclose the apparatus substantially as claimed as mentioned above, except for the limitations of instant claims 5 and 6.

Hayashi et al. (US 4,548,775) disclose an extrusion molding machine (i.e., fig. 1) including a mold (i.e., 2, 3, 4) provided with multiple apertures 31 for production of a fused product (i.e., figs. 3 and 6; col. 1, lines 5-22), and the multiple apertures 31 being dispersively arranged so that triangles defined by three neighboring apertures of the multiple apertures assume an equal shape, wherein the multiple apertures have a circular shape, and a diameter of the multiple apertures is 1.8 mm in diameter (i.e., fig. 4; col. 11, lines 14-16).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus with the mold of Hayashi et al. (US 4,548,775) because such a modification would enable production of a fused product.

***Response to Arguments***

6. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicants argue that Kemerer does not disclose or suggest "a first stage of the plurality of stages of the heater is set above 60°C and below 100°C, and a final stage of the plurality of stages is set above 160°C and below 240°C," as recited in amended Claim 1; that instead, Kemerer describes that the material is preferably heated to a moderate temperature above 180°F but not above 400°F, but Kemerer does not disclose that the individual heaters 21-1 through 21-4 should have different individual heat outputs; that, thus, Kemerer does not disclose or suggest that a first one of the heaters 21-1 through 21-4 be set above 60°C and below 100°C or that a final one of the heaters 21-1 through 21-4 be set above 160°C and below 240°C; and that, accordingly, it is respectfully submitted that the heaters 21-1 through 21-4 described in Kemerer are not the "heater" recited in amended Claim 1. The examiner respectfully disagrees.

Kemerer et al. (US 4,128,369) disclose that each heater 21-1, 21-2, 21-3, 21-4 (i.e., col. 11, lines 19-57; col. 18, lines 28-56) heats up the extrusion material by individual control capable of having different heat outputs. As mentioned above, the heaters are capable of outputting the instantly claimed temperatures, and/or such temperatures would have been found due to routine experimentation in finding operable or optimum temperatures depending upon the processing conditions, such as materials used.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH LEYSON whose telephone number is (571)272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert B. Davis/  
Primary Examiner, Art Unit 1791

/J. L./  
Examiner, Art Unit 1791